CITY OF MARTINSVILLE, VIRGINIA JOB DESCRIPTION

JOB TITLE: TELECOMMUNICATIONS NETWORK SPECIALIST	DEPARTMENT: PUBLIC WORKS
REPORTS TO: NETWORK MANAGER	CLASSIFICATION: GRADE 14
FLSA STATUS: NON-EXEMPT	DATE: 11/2012 (new)

NATURE OF WORK

This is highly skilled work in the installation, maintenance management, and repair, of telecommunication equipment, including optical cable, switch gear, and a variety of electronic systems and related equipment. In addition, work shall include providing network design, security, architecture and administration of the various voice hardware and software components on the global network. Work shall also include telephony system design using Avaya and Cisco platforms including call and ACD clients, alarm monitoring systems, rollover systems, messaging systems and corporation's client systems.

Performs difficult technical work administering the Martinsville Informational Network (MINet) that serves all City departments, schools, and customers outside of the City government. Requires coordination with other technical and related clerical support personnel inside and outside the department. Work is performed under the general supervision of the Telecommunications Manager of the City of Martinsville.

Work involves responsibility for installing, maintaining, adjusting, and repairing a variety of telecommunications and traffic signal systems and related equipment, such as but not limited to optic cable, switches, routers, Optical Carrying Nodes, Timers, and Conflict Monitors. Work also involves participating in telecommunications and traffic planning and engineering activities as required. Assignments are usually reviewed orally or in writing from the Telecommunications Manager; however, the employee in this class works with considerable technical independence in the repair and maintenance of telecommunications systems and the installation of such systems according to telecommunications guidelines and plans. Work also involves the installation and maintenance of fiber and related equipment.

EXAMPLES OF WORK

Work with Telecommunications Manager to assist with the specification, installation, and maintenance of voice networking equipment. Design, Architect, install and maintain several local and remote telephony and voice mail related hardware and software systems supporting the City of Martinsville's Government, Schools, and corporate clients

Monitor voice networks, servers, desktop systems and applications on a regular basis using both manual and automated network management and analysis tools in order to identify potential problem areas and ensure prompt corrective action is initiated

Communicate with Technical Assistance Centers (Avaya and Cisco) to resolve high level issues within the phone and data network.

Develop detailed technical documentation for voice network and research system documentation to obtain solutions; Evaluate, select and apply proven techniques, procedures and criteria, in making enhancements and modifications to the voice network infrastructure including telephony or data circuits, systems hardware and software; organize the tracking of hardware and software modifications to the network infrastructure

Develop criteria for evaluation and selection of vendor hardware and software to determine adherence to corporate guidelines

Maintain a detailed technical expertise of the voice communications, network operations, hardware and software supporting corporate voice networks, servers, and desktop systems

Assists a working staff in the maintenance, repair, modifications, of all telecommunications and traffic control systems.

Design, install, test and maintain fiber optic cable and copper plant according to all communications industry standards. Install and activate customer premise equipment. Troubleshoot customer network problems with Network Manager and Engineers.

Install, test and maintain telephone systems including PBX and Class 5, PSTN, NETWORKS. Installs security and various alarm systems. Ensures proper documentation for inside and outside plant operations.

Installs and configures network systems including but not limited to servers, routers, switches, firewalls, cabling and fixtures, and various software. Configures network resources; monitors and tests performance; Identifies Networking and bandwidth shaping issues

Investigates and corrects identified problems; assures effective system performance and proper maintenance. Administers network securities under the guidance of the Telecommunications Manager. Evaluates existing infrastructure and inventories of services, hardware and assists in the development of network extension, replacement, upgrade, and consolidation plans. Provides technical support and training

Provides technical assistance in the configuration, performance optimization, maintenance and capacity planning for an environment consisting of the following major components: Nortel/Avaya PBX, Symposium, switches and routers, Avaya and Cisco VOIP and Key System, Positron Optical Carrying Nodes, Video Conferencing Systems.

Identifies and resolves telephony issues that affect City, Schools, and Customer base. Responsible for the timely backup of switches routers and telephony systems. Oversees and conducts MAC orders as required by the customer base.

Researches solutions to difficult problems and reports to the Telecommunications Manager of unresolved issues for Assistance. Assists Telecommunications Manager in training sessions in the use of advanced Telephony and network delivery for internal and external customer base. Assists Telecommunications Manager in downloading new software to telecommunications and traffic control systems.

Assists in the installation of various traffic signal systems and associated equipment; installs cables; makes wiring connections; installs traffic signal lights, walk lights and school flashers; tests, splices and wipes wires and cables; replaces faulty lamps, transformers, relays as needed.

Assists and prepares cost estimate of damaged equipment; makes traffic counts and prepares statistical reports; prepares summons and diagrams of traffic accidents as requested; assists in the planning and engineering of new traffic control system layouts;

Operates a variety of hand, power and electronic test equipment including multi-meter, signal tracer; assists other departments by troubleshooting electronic and electrical devices. Assists with the installation and maintenance of fiber optic cable and related equipment.

Performs related work as required.

MINIMUM QUALIFICATIONS OF WORK

Through knowledge of computers, and networks, including telecommunications and electrical engineering principles and practices, services, data protocol, and industry standards. Ability to analyze and assess computer/network architecture requirements and determine optimum, cost-effective solutions. Ability to plan, schedule, and coordinate special projects and assignments. Strong interpersonal and communications skills and the ability to work effectively with a wide range of constituencies and a diverse

community. Ability to communicate technical information to non-technical personnel. Ability to plan, develop, and coordinate multiple projects.

Education: Any combination of education, experience and skills equivalent to graduation of an accredited college or technical school with an Associate's degree in computer technology related subject area. Bachelor's degree in computer science is highly desirable. 6+ years of applicable work experience supporting an enterprise class telephone system with working knowledge of Cisco and Nortel/Avaya systems, Call pilot, Symposium, Traditional, Digital, VOIP, SIP Trunking, and voicemail is necessary.

Skills: Posses demonstrated understanding and working knowledge of key telephone and other telecommunications technologies. Basic project management skills and ability to accurately interpret requirements, analyze data, reason logically, exercise sound judgment, and develop effective solutions to problems are required. Basic networking skills highly preferred. Must have experience working closely with groups in IT Operations, Physical and Logical Security groups, customers, and telecommunications and networking vendors for architecture, installation, configuration, support and procurement of voice switch and voice mail, Router and switch operation and firewall architecture.

Must be physically able to operate a variety of automated office machines including computers, copy machines. Must be proficient in the use of word processing, spreadsheet, and data base and computer aided-design software; standard drafting tools; pipe locator; engineering calculator; motor vehicle; phone; mobile radio, various hand tools and electrical testing equipment.

Must be proficient in the use of Optical Time Domain Reflectometers, Laser meters, Optical splice machines, and various optical analyzers.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Hand-eye coordination is necessary to operate drafting instruments, computers, various pieces of office equipment, hand and power tools and electrical equipment/controls.

Must be able to physically lift, carry, push, pull or otherwise move objects or items customary and reasonable in an office environment. This job requires one to sit for long periods of time and also involves standing or walking during some periods; must be physically capable of moving about on construction work sites.

Vocal communication is required for expressing or exchanging ideas by means of spoken words. Visual acuity is required for preparing, and analyzing written computer data, determining the accuracy and completeness of work, and observing general surroundings and activity.

While performing the duties of this job, the employee is occasionally required to stand, walk; use hands to finger, handle, feel or operate objects, tools, or controls; and reach with hands and arms. The employee is occasionally required to sit; climb or balance; stoop, kneel, crouch, or crawl; talk or hear. Employee must be able to operate and work out of a bucket truck at heights up to 100 feet.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 100 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee regularly works in outside weather conditions. The employee occasionally works near moving mechanical parts and in high, precarious places and is occasionally exposed to wet and/or humid conditions, fumes or airborne particles, toxic or caustic

chemicals, risk of electrical shock, and vibration. The noise level in the work environment is usually moderate. Work is a combination of indoor/outdoor work. The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

SPECIAL REQUIREMENTS

Must possess proper credentials to communicate with Avaya and Cisco TAC centers, or must obtain those credentials within one year. Must possess a valid Virginia Commercial Driver's License, or have the ability to obtain one within six months of employment.